## IN THE CLAIMS

Please amend the claims to read as follows:

1.    (Currently Amended) A method for compressing an indexed color image on a computer, the method comprising:

identifying a pixel color for a pixel;

identifying a left neighbor color for a left neighbor of the pixel;

identifying an upper neighbor color for an upper neighbor of the pixel;

comparing the pixel color with the left neighbor color and the upper neighbor color;

selecting a probability model from a probability set, the probability set including at least two probability models, each probability model including at least two probabilities for the pixel color;

encoding the pixel color based on the comparison using a the probability model; and

updating the probability model.

2.    (Original)    A method according to claim 1, the method further comprising encoding the left neighbor color for the left neighbor of the pixel and the upper neighbor color for the upper neighbor of the pixel according to the probability model.

3.    (Original)    A method according to claim 1, wherein updating the model includes changing a probability value regarding the relationship between the pixel color and the left neighbor color and the upper neighbor color.

4.    (Original)    A method according to claim 1, wherein encoding the pixel color includes encoding the pixel color based on the comparison using a probability value in the probability model regarding the relationship between the pixel color and the left neighbor color and the upper neighbor color.

5.    (Original)    A method according to claim 4, wherein encoding the pixel color further includes selecting one of a plurality of probability values in the probability model regarding the relationship between the pixel color and the left neighbor color and the upper neighbor color.

6.     (Original)     A method according to claim 4, wherein encoding the pixel color further includes selecting an index from a color palette according to the results of comparing the pixel color to the left neighbor color and the upper neighbor color.

7.     (Original)     A method according to claim 6, wherein encoding the pixel color further includes compressing the selected index from the color palette.

8.     (Currently Amended) A method according to claim 4, ~~encoding the pixel color~~ wherein encoding the pixel color <u>further</u> includes encoding the probability value.

9.     (Canceled)

10.     (Currently Amended) A method for compressing an indexed color image on a computer, the method comprising:

detecting a background color of the image;

selecting a part of the image that includes a color other than the background ~~color;~~ ~~and~~ <u>color, the selected part of the image including at least two pixels;</u>

~~compressing the selected part of the image.~~

<u>dividing the selected part of the image into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block includes at least one pixel with a color other than the background color and each pixel in the image with a color other than the background color is included in exactly one block in each tessellation;</u>

<u>estimating a size for each tessellation, wherein each block in each tessellation is compressed separately;</u>

<u>selecting a tessellation with a smallest estimated size; and</u>

<u>compressing each block in the selected tessellation separately.</u>

11.     (Original)     A method according to claim 10, wherein compressing the selected part of the image includes:

locating at least one block in the image that includes a pixel with a color other than the background color; and

compressing each block separately.

12.    (Original)    A method according to claim 10, wherein compressing the selected part of the image includes storing a location, a size, and a color for the part of the image when the part of the image includes pixels with only a single color.

13.    (Canceled)

14.    (Canceled)

15.    (Currently Amended) A method for decompressing an indexed color image on a computer, the method comprising:

decoding a probability value for a compressed color for a pixel;

selecting a probability model from a probability set, the probability set including at least two probability models, each probability model including at least two probabilities for the pixel color;

determining whether the probability value represents the same color as a left neighbor color for a left neighbor of the pixel or an upper neighbor color for an upper neighbor of the pixel using a the probability model;

decoding an uncompressed color for the pixel; and

updating the probability model.

16.    (Original)    A method according to claim 15, wherein updating the model includes changing the probability value in the probability model regarding the relationship between the compressed color and the left neighbor color and the upper neighbor color.

17.    (Original)    A method according to claim 15, wherein determining whether the probability value represents the same color includes using the probability value in the probability model regarding the relationship between the compressed color and the left neighbor color and the upper neighbor color.

18.    (Original)    A method according to claim 17, wherein using the probability value includes selecting one of a plurality of probability values regarding the relationship between the compressed color and the left neighbor color and the upper neighbor color.

19. (Original) A method according to claim 15, wherein decoding an uncompressed color includes selecting an index from a color palette according to whether the compressed color represents the same color as the left neighbor color or the upper neighbor color.

20. (Original) A method according to claim 19, wherein selecting an index from a color palette includes decoding the selected index when the compressed color is determined to be different from the left neighbor color and the upper neighbor color.

21. (Canceled)

22. (Currently Amended) A computer-readable medium containing a program to compress an indexed color image on a computer, the program comprising:

identification software to identify a pixel color for a pixel;

identification software to identify a left neighbor color for a left neighbor of the pixel;

identification software to identify an upper neighbor color for an upper neighbor of the pixel;

comparison software to compare the pixel color with the left neighbor color and the upper neighbor color;

selection software to select a probability model from a probability set, the probability set including at least two probability models, each probability model including at least two probabilities for the pixel color;

encoding software to encode the pixel color based on the comparison using a the probability model; and

updating software to update the probability model.

23. (Original) A computer-readable medium containing a program according to claim 22, wherein the updating software includes changing software to change a probability value regarding the relationship between the pixel color and the left neighbor color and the upper neighbor color.

24. (Original) A computer-readable medium containing a program according to claim 22, wherein the encoding software includes selection software to select one of a

plurality of probability values in the probability model regarding the relationship between the pixel color and the left neighbor color and the upper neighbor color.

25. (Original) A computer-readable medium containing a program according to claim 22, the program designed to store the compressed indexed color image in a data structure in memory, the data structure including:

dimensions for the image;

a color palette for the image;

a background color of the image; and

at least one compressed block, the compressed block including a location for the block, dimensions for the block, and at least one pixel compressed using a dynamic probability model.

26. (Canceled)

27. (Currently Amended) A computer-readable medium containing a program to compress an indexed color image on a computer, the program comprising:

detection software to detect a background color of the image;

selection software to select a part of the image that includes a color other than the background ~~color; and~~ color, the selected part of the image including at least two pixels:

~~compression software to compress the selected part of the image.~~

division software to divide the selected part of the image into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block in each tessellation includes at least one pixel with a color other than the background color and each pixel in the image with a color other than the background color is included in exactly one block in each tessellation;

estimation software to estimate a size for each tessellation, wherein each block in each tessellation is compressed separately;

selection software to select a tessellation with a smallest estimated size; and

compression software to compress each block in the selected tessellation separately.

28. (Canceled)

29. (Canceled)

30.    (Original)    A computer-readable medium containing a program according to claim 27, the program designed to store the compressed indexed color image including at least two frames in a data structure in memory, the data structure including:

dimensions for the image;

a color palette for the image;

a background color of the image;

at least one compressed block, the compressed block including a location for the block, dimensions for the block, and at least one pixel compressed using a dynamic probability model; and

a frame marker indicating whether or not one of the frames is a distance frame.

31.    (Currently Amended) A computer-readable medium containing a program to decompress an indexed color image on a computer, the program comprising:

decoding software to decode a probability value for a compressed color for a pixel;

selection software to select a probability model from a probability set, the probability set including at least two probability models, each probability model including at least two probabilities for the pixel color;

determination software to determine whether the probability value represents the same color as a left neighbor color for a left neighbor of the pixel or an upper neighbor color for an upper neighbor of the pixel using a the probability model;

decoding software to decode an uncompressed color for the pixel; and

updating software to update the probability model.

32.    (Original)    A computer-readable medium containing a program according to claim 31, wherein the updating software includes changing software to change the probability value in the probability model regarding the relationship between the compressed color and the left neighbor color and the upper neighbor color.

33.    (Original)    A computer-readable medium containing a program according to claim 31, wherein the determination software includes modeling software operable in accordance with the probability model to use the probability value in the probability model regarding the relationship between the compressed color and the left neighbor color and the upper neighbor color.

34. (Original) A computer-readable medium containing a program according to claim 31, wherein the decoding software includes selection software to select an index from a color palette according to whether the compressed color represents the same color as the left neighbor color or the upper neighbor color.

35. (Original) A computer-readable medium containing a program according to claim 34, wherein the selection software includes decoding software to decode the selected index when the compressed color is determined to be different from the left neighbor color and the upper neighbor color.

36. (Currently Amended) An apparatus comprising:

a computer including a processor and a memory;

an indexed color image loaded in the memory of the computer;

a color palette specifying colors in the image;

a probability model predicting a probability value of a color of a pixel given a color of a left neighbor of the pixel and a color of an upper neighbor of the pixel;

a probability set, including at least two probability models, each probability model including at least two probability values for a color of a pixel given a color of a left neighbor of the pixel and a color of an upper neighbor of the pixel;

selection means to select the probability model from the probability set;

an update module designed to update the probability value in the probability model given the color of the pixel, the color of the left neighbor of the pixel, and the color of the upper neighbor of the pixel; and

an a compressor designed to compress the color of the pixel using the color palette.

37. (Original) An apparatus according to claim 36, wherein:

the image includes a first frame and a second frame; and

the apparatus further comprises a distance frame generator for generating a distance frame between the first and second frames of the image.

38. (Currently Amended) An apparatus according to claim 36, wherein:

the image includes a background color; and

the apparatus further comprising a block locator for locating a block in the image, the block including at least one pixel with a color other than the background color. color and at least a second pixel.

39.    (Currently Amended) An apparatus according to claim 36 36, the apparatus further comprising a size estimator designed to estimate the size of the compressed image using a division of the image.

40.    (Canceled)

41.    (Canceled)

42.    (Original)    An apparatus according to claim 36, the apparatus further comprising decompression means for decompressing a compressed image compressed on the computer.

43.    (Original)    An apparatus according to claim 42, wherein:
the decompression means are operable on a second computer; and
the apparatus further comprises transmission means for transmitting the compressed image from the computer to the second computer.

44.    (Canceled)

45.    (Currently Amended) A memory for storing a compressed image file, file for access by an application program being executed on a computer, comprising:
a data structure stored in said memory, said data structure including:
dimensions for the image;
a color palette for the image;
a background color of the image; and
at least one compressed block, the compressed block including a location for the block, dimensions for the block, and at least one pixel compressed using a dynamic probability model. model, the compressed block including a subset of pixels in the image.

46.    (Original)    A memory according to claim 45, wherein:

the image includes at least two frames; and

the data structure further includes a frame marker indicating whether or not one of the frames is a distance frame.

47.     (New) A method for compressing an indexed color image on a computer, the method comprising:

detecting a background color of the image;

selecting a part of the image that includes a color other than the background color;

dividing the image into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block includes at least one pixel with a color other than the background color and each pixel in the image with a color other than the background color is included in exactly one block in each tessellation;

estimating a size for each tessellation, wherein each block in each tessellation is compressed separately;

computing a distance frame between a first frame and a second frame of the image;

dividing the distance frame into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block includes at least one pixel with a color other than the background color and each pixel in the distance frame with a color other than the background color is included in exactly one block in each tessellation;

estimating a size for each tessellation of the distance frame, wherein each block in each tessellation is compressed separately;

selecting a tessellation from the tessellations of the image and the tessellations of the distance frame with a smallest estimated size; and

compressing each block in the selected tessellation separately.

48.     (New) A computer-readable medium containing a program to compress an indexed color image on a computer, the program comprising:

detection software to detect a background color of the image;

selection software to select a part of the image that includes a color other than the background color;

division software to divide the image into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block includes at least one pixel with a color other than the background color and each pixel in the image with a color other than the background color is included in exactly one block in each tessellation;

estimation software to estimate a size for each tessellation, wherein each block in each tessellation is compressed separately;

distance computing software to compute a distance frame between a first frame and a second frame of the image;

division software to divide the distance frame into at least two tessellations of blocks, each tessellation of blocks including at least one block, wherein each block includes at least one pixel with a color other than the background color and each pixel in the distance frame with a color other than the background color is included in exactly one block in each tessellation;

estimation software to estimate a size for each tessellation of the distance frame, wherein each block in each tessellation is compressed separately;

selection software to select a tessellation from the tessellations of the image and the tessellations of the distance frame with a smallest estimated size; and

compression software to compress each block in the selected tessellation separately.


49.    (New) An apparatus comprising:

a computer including a processor and a memory;

an indexed color image loaded in the memory of the computer;

a color palette specifying colors in the image;

a probability model predicting a probability value of a color of a pixel given a color of a left neighbor of the pixel and a color of an upper neighbor of the pixel;

an update module designed to update the probability value in the probability model given the color of the pixel, the color of the left neighbor of the pixel, and the color of the upper neighbor of the pixel;

a size estimator designed to estimate the size of the compressed image using a division of the image;

selection means to select a division of the image based on the estimated size of a plurality of divisions of the image; and

a compressor designed to compress the color of the pixel using the color palette.


50.    (New) An apparatus according to claim 49, wherein the selection means is further designed to select the division of the image based on the estimated size of the plurality of divisions of the image and the estimated size of a plurality of divisions of a distance frame between a first frame and a second frame of the image.

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